DEELC AND			·· · · · · · · · · · · · · · · · · · ·	•		
TRANSMITTAL OF INFORMATION DISCLOSURE STATEMENT					Docket No.	
DEL	(Under 37 CFR 1.97(b) or 1.97(c)) 15624-US					4-US
In Re A	pplicati	on Of: Fa	rsheed Mahmoudi et al.			
	Serial No. Filing Date Examiner Group Art Unit					
10/	725	,513	December 3, 2003		•	2681
Title: LOW-VOLTAGE LOW-POWER HIGH-LINEARITY ACTIVE CMOS MIXER						
			Assistant Comm	dress to: nissioner for Patents on, D.C. 20231		
			37 CF	R 1.97 (b)		
1. 🛚	1. The Information Disclosure Statement submitted herewith is being filed within three months of the filing of a national application; within three months of the date of entry of the national stage as set forth in 37 CFR 1.491 in an international application; or before the mailing date of a first Office Action on the merits, whichever event occurs last.					
				R 1.97 (c)		
2. 🔲	of a inten	national ap national ap	n Disclosure Statement submitte oplication, or the date of entry of oplication; or after the mailing of the the mailing date of either	f the national stage as set a date of a first Office Action	forth in	37 CFR 1.491 in an
		1.	a Final Action under 37 CFR 1	.113, or		•
		2.	a Notice of Allowance under 3	7 CFR 1.311,		
	whichever occurs first.					
	Also	submitted	herewith is:			
		a certifica	ation as specified in 37 CFR 1.9	7(e);		
			OR			
			eet forth in 37 CFR 1.17(p) for CFR 1.97(c).	submission of an Informa	ation D	isclosure Statement
-						

NSMITTAL OF INFORMATION DISCLOSURE STATEMENT Docket No. 15624-US (Under 37 CFR 1.97(b) or 1.97(c)) In Re Application Of: Farsheed Mahmoudi et al. Serial No. Filing Date Group Art Unit Examiner 10/725,513 2681 December 3, 2003 Title: LOW-VOLTAGE LOW-POWER HIGH-LINEARITY ACTIVE CMOS MIXER Payment of Fee (Only complete if Applicant elects to pay the fee set forth in 37 CFR 1.17(p)) A check in the amount of is attached. The Assistant Commissioner is hereby authorized to charge and credit Deposit Account No. as described below. A duplicate copy of this sheet is enclosed. Charge the amount of Credit any overpayment. Charge any additional fee required. Certificate of Transmission by Facsimile* Certificate of Mailing by First Class Mail I certify that this document and fee being deposited on with the U.S. Postal Service as first class mail under 37 C.F.R. 1.8 and addressed to the I certify that this document and authorization to charge deposit account is being facsimile transmitted to the United States Patent and Trademark Office (Fax. No. Assistant Commissioner for Patents, Washington, D.C. 20231. (Date) Signature Signature of Person Mailing Correspondence Typed pr Printed Name of Person Signing Certificate Typed or Printed Name of Person Mailing Correspondence *This certificate/may only be used if paying by deposit account. March 17, 2004 Dated: George M. MacGregor 37,547 Marks & Clerk Canada P.O. Box 957 Station B

Ottawa, ON, K1P 5S7 Phone: (613) 236-9561

PTO/SB/08a (08-03)

Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE.

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Set the Pages and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Act of 1995, as persons are required to respond to a collection of information unless it contains a valid OMR control number.

der the Paperwork Reduction Act of 1995. no persons are required Substitute for form 1449A/PTO	o respond to a collection of information unless it contains a valid OMB control number. Complete if Known			
Substitute for form 1449APTO	Application Number	10/725,513	_	
INFORMATION DISCLOSURE	Filing Date	December 3, 2003		
STATEMENT BY APPLICANT	First Named Inventor	Farsheed Mahmoudi		
OTATEMENT DI ATTEMAN	Art Unit	2681		
(Use as many sheets as necessary)	Examiner Name			
1 1 of 2	Attorney Docket Number	15624-US	J	

U. S. PATENT DOCUMENTS Cite Publication Date MM-DD-YYYY Name of Patentee or Pages, Columns, Lines, Where Examiner **Document Number** Applicant of Cited Document Relevant Passages or Relevant Initials* No. Figures Appear Number-Kind Code^{2 (# known)} ^{US-} 6,232,848 B1 05-15-2001 Manku ^{US-} 6,094,084 07-25-2000 Abou-Allam et al. US-US-115-บร-US-บร-IIS-US-US-US-USus-US-US-US-US-

	FOREIGN PATENT DOCUMENTS					
Examiner Initials*	Cite No.1	Foreign Patent Document Country Code ³ (<i>Number</i> ⁴ 'Kind Code ⁵ (<i>if known</i>)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
	1					

Examiner	Date	
Signature	Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional). 2 See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. 3 Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 4 For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 5 Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. 6 Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

PTO/SB/08b (08-03)

Approved for use through 06/30/2006. OMB 0651-0031 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

nder the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Complete if Known Substitute for form 1449B/PTO Application Number 10/725,513 Filing Date INFORMATION DISCLOSURE December 3, 2003 First Named Inventor STATEMENT BY APPLICANT Farsheed Mahmoudi Art Unit 2681 (Use as many sheets as necessary) Examiner Name Attorney Docket Number Sheet 2 15624-US

2

	NON PATENT LITERATURE DOCUMENTS					
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²			
		KIM, Tae Wook et al., "Highly linear RF CMOS amplifier and mixer adopting MOSFET transconductance linearization by multiple gated transistors", IEEE, 2003, pages 107-110.				
		KIM, Youngwook et al., "Linearized mixer using predistortion technique", IEEE Microwave and Wireless Components Letters, Vol. 12, No. 6, 2002, pages 204-205.				
		Bautista, Edwin E. et al., "A high IIP2 downconversion mixer using dynamic matching", IEEE Journal of Solid-State Circuits, Vol. 35, No. 12, 2000, pages 1934-1941.				
		LI, Qiang et al., "CMOS RF mixer no-linearity design", IEEE, 2001, pages 808-811.				
		WANG, Zhenhua et al., "A voltage-controllable linear MOS transconductor using bias offset technique", IEEE Journal of Solid-State Circuits, Vol. 25, No. 1, 1990, pages 315-317.				
i		HEYDARI, Payam, "High-frequency noise in RF active CMOS mixers".				
		ROFOUGARAN, A. et al., "A1 GHz CMOS RF front-end IC with wide dynamic range".				

	<u> </u>	1
Examiner	*	Date
Signature		Considered

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.